



# ISSUES AND CHALLENGES OF HIGHER EDUCATION AN INDIAN PERSPECTIVE: IMPACT AND CONSEQUENCES

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## ABSTRACT

The challenges faced by higher education in India are diverse, as expected from any country with its size and population. Statistical data reflects no particular spurt on the higher education front and neither any enhancement in the employment rate. What are these challenges and can a few methods of reform actually bring about a change for the better in the future!

A number of reforms have been presented time and again, even by the Indian National Science Academy (New Delhi) and the Indian Academy of Sciences (Bangalore) to the Planning Commission for the XI Five Year Plan for meeting the challenges in higher education in both education and research. A review and subsequent implementation of most of them will definitely ensure a path to progress for higher education in our country.

**KEYWORDS:** Higher education; demographically different; scientific temper; industrial Collaboration; Career Advancement System.

## Introduction

The various issues and challenges that our country's higher education faces are well documented<sup>1</sup>. So at times we wonder, what is the need to put pen to paper some independent person's views again and again? Maybe, it is because even though we know the imminent danger that our higher education system is faced with and what the consequences are, we still cannot seem to bring certain salient features home to our worthy Indian politicians and bureaucrats.

Yes! We are well aware that there is a major divide amongst the population of India who wish to pursue education and those who can! It is unfortunately a luxury for only a hand-full of our population. But that set aside, what are the issues that our higher education is faced with and consequently what should be the solution? Why are these problems augmenting at such a quick pace?

'Change is inevitable!' And that change has to come about in our education system as well and has been documented<sup>2</sup> in the words of Professor Pankaj Chandra, Director IIM, Bangalore- 'Change at the scale we will see in the next ten years in education in India is unprecedented in human history.'

## Discussion

Since I come from the Faculty of chemical sciences it is but natural that my perspective is about the issues faced in higher science education in India. Out of a 1.28 billion<sup>3</sup> population of our country the student enrollment is extremely low, barely 19% constitutes to our Indian students out of which a meager 1% opt for pursuing their higher education in Science<sup>2</sup>.

So! Where does it all start from? I believe that the metropolitan cities hold an advantage over small towns as the natural choice for a majority of the students seeking admission into graduate and post-graduate courses because of, greater opportunities and better quality of education imparted by more qualified and experienced faculty. Influx of local students, along with the ones from neighboring smaller towns and villages, into city colleges has resulted in an imbalance in the student strength at the graduate level in different regional universities. The preferred educational hubs<sup>3</sup> being Delhi, Chandigarh, Lucknow, Patna, Guwahati, Kolkata and Bhubaneswar. Therefore the larger number of students in each class has resulted in widening the gap between teacher-student optimum ratios. Another contributing factor to the 'attractiveness' of certain metropolitan institutions maybe the larger number of interdisciplinary subject options being offered to the student at the graduation and post-graduation levels. Also since India is so diverse, the students come from demographically different regions with varied life-styles, different vernacular, drastically varied financial backgrounds and to add to these issues a non-uniform syllabi at high school level. Building up academically, on such a foundation becomes a challenge which is not easily met, leading to lack of clarity of the fundamental concepts. This further impacts the grasp and understanding of the subject at the graduate and post-graduate level, in turn affects the aptitude of the students who wish to pursue higher education, making them more confused and less focused. In fact at times they completely divert away from sciences all together leading to a low rate of enrollment in higher science education. It is also found that as most students are unaware of the career options after graduating in science, they opt out from studying science at the undergraduate level.

Therefore, the government cannot afford to turn a blind eye to such concerns, a nationwide sensitization to inculcate a scientific temper in the high schools will

be beneficial and this needs to be initiated and propagated on a war footing. Some of these issues may be ironed out if the government ensures a nationwide uniform high school course curriculum. This will provide a structured approach to the students to pursue and acquire an academic degree more suited to their individual psychological framework and interests with greater demographic flexibility.

I would further like to elaborate the issues and challenges faced in higher education in Chemical Science Research. The problems and trends in higher chemistry education have been beautifully projected in the invited essay on 'Chemistry in India' in 2012<sup>5</sup>. I have personally found that at the entry level in Sciences, a majority of the students come by default, after not clearing the engineering or medical entrance examinations. And it is seen that some of these students have a low morale or may even be dejected therefore motivation by the teachers is essential as such students do not have an end goal in mind and personal mentoring becomes essential. They are a few examples of course that can be cited where a person takes up a particular educational field with a focus and end goal in mind, such as Dr. Lakshmi Kantam.<sup>6</sup>

Another issue is that of unemployment, even though the rate of unemployment has gone down over the last decade, according to a report by the Ministry of Labour and Employment<sup>7</sup> of India. However, the number of unemployed educated has increased. After acquiring a degree in higher education, such as M.Phil. or Ph.D. in chemical sciences the aspirations of the person seeking a lucrative job in a pharmaceutical, paint or other chemical industries also increases. But unfortunately, due to the ever changing global and national scenario and the current on-going global recession, certain companies no longer offer attractive pay packages. According to the data on placements and recruitments<sup>8</sup>, it is clear that acquiring a higher education degree even from premier league institutions of India is no longer a lucrative proposition.

The government should work in symbiosis with industries and institutions so as to bridge the gap in the syllabus for higher science chemical education courses at graduate and post-graduate levels so as to bring about skill development amongst the students which will cater to the needs of the employing establishment and in turn will enhance the chances of a candidate's recruitment. The government's education Advisor too should have a re-think on framing the objectives of such courses keeping the end goal in mind, they need to re-assess whether these objectives are meeting the desired outcomes! Are the objectives fulfilling the requirement so that an array of opportunities is open to these students?

Yet another issue due to the present day scenario, is the lack of excellent scientific research and higher education initiatives, the government funding authorities of India have drastically cut fund distribution to different technical universities and colleges, because of such a Nation-wide financial constraint, higher education in subjects like chemistry have been adversely affected. The need of the hour is thus encouragement of large scale collaborations between institutions and industries to trouble shoot the industry related chemical problems through Ph.D. work creating a win-win situation for the all the stakeholders, the student, the industry and eventually the country! The industries will benefit as they generally have poor R&D, lack innovative research or new drug delivery systems therefore lag behind their western counterparts.

Finally, I would like to add that due to the implementation of UGC's Career Advancement System (CAS), the teachers have to now focus away from their pri-

mary objective of 'teaching', to that of acquiring grants (which too have become difficult to come across), in order to produce effective research, ensuing publications and eventually the much required score for their career advancement.

Why is the government so insistently pushing the education system away from dissemination of knowledge and so prominently towards research?

### Conclusion

I would like to conclude by stating that the education system of our country has fallen victim to the 'Domino Effect' which has arisen due to financial constraints all around, either at the state level or that at the centre. Recruitment of teachers is not being carried out, this has led to a major deficit of teachers which in turn has affected the imparting of quality education to students and has led to a fall in the strength of students desirous of seeking science education. Various recommendations have been put forth by the Indian National Science Academy (New Delhi) and the Indian Academy of Sciences (Bangalore) to the Planning Commission for the XI Five Year Plan for meeting the challenges in higher education in both education and research<sup>9</sup>. If these recommendations are met most of our country's higher education challenges and hurdles will be overcome. These hurdles are summarized in the following points:

- Insensitivity towards issues faced in higher science education in India.
- 19% of the Indian population comprises of students, out of which a meagre 1% opt for pursuing their higher education in Science.
- Influx of local students into city colleges has resulted in an imbalance in the student strength at the graduate level in different regional universities.
- Indian students come from demographically different regions having varied life-styles, different vernacular, drastically varied financial backgrounds. Thus building up academically, on such a foundation becomes a challenge which is not easily met, leading to lack of clarity of the fundamental concepts.
- The number of unemployed educated has increased in India.
- Symbiosis between industries and institutions has to exist so as to bridge the gap in the syllabus for higher science chemical education courses at graduate and post-graduate levels so as to bring about skill development.
- Large scale collaborations between institutions and industries.
- Lack of excellent scientific research and higher education initiatives along with roll back on fund distribution to different technical universities and colleges, higher education in subjects like chemistry have been adversely affected.
- Allow the teachers to focus on their primary objective of teaching.

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